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INTERNATIONAL BUSINESS MACHINES CORPORATION
INTELLECTUAL PROPERTY LAW, DEPT. QPZA/ 210
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EXAMINER

RAMPURIA, SATISH

ART UNIT	PAPER NUMBER
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2191

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

10/015,310

Applicant(s)

MESTRE ET AL

Examiner

Satish S. Rampuria

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14 and 23-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14 and 23-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This action is in response to the amendment received on 01/26/2005.
2. The objection to use of trademarks (JAVA) in the specification is withdrawn in view of applicant's amendment.
3. The objection to claims 5 and 19 due to trademarks (JAVA) is withdrawn in view of applicant's amendment.
4. The rejections under 35 U.S.C. §112 second paragraph to claim 5 and 19 is withdrawn in view of applicant's amendment.
5. Claims cancelled by the applicant: 1-8 and 15-22.
6. Claims amended by the applicant: 9, 11, 12, 14, 23, 25, 26, and 28-33.
7. Claims pending in the application: 9-14 and 23-33.

Claim objections

8. Claim 9, 28, and 31 objected to because of the following informalities:

Regarding, claim 9, page 3, the semicolon (;) is missing at the end of step(ii) after word "said model".

Regarding, claim 28, page 5, the numbering of step should have been (iv) instead of (iii) to be consistent with the above steps in claim 23.

Regarding, claim 31, page 6, the objection to use of the trademark "Java" is still stand rejected and it has been noted in claims 5 and 19 on page 17, line 16 and page 18, line 29 respectively. It should be appropriate or proper term e.g., Java™ or JAVA (see MPEP 608.01(v)) used, wherever it appears and be accompanied by the generic terminology. Although

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the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

Claim Rejections - 35 USC § 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 31 is still stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Clarification and/or correction are required.

Claim 31 contain the trademark/trade name "Java". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name.

The rejection of the base claim is necessarily incorporated into the dependent claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 9-14, and 23-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,595,932 to Baisley et al. (hereinafter called Baisley) in view of US Patent No. 6,199,195 to Goodwin et al. (hereinafter called Goodwin).

Per claims 9 and 10:

Baisley disclose:

- A computer-implemented method of generating serialization code for representing a model in a plurality of type systems (col. 1, lines 52-53 “automatically converts a model existing in the UML to a MOF model”), the method comprising the steps of:
 - i) producing an input file from said model for a given set of objects (col. 7, lines 65-66 “FIG. 3 illustrates the fact that a flat file 25 form of the model may be converted”);
 - ii) updating said input file with specific type related information including:
names bindings between said model and different type systems (col. 8, line 60 “process for exporting a class... MOF class object is created... process... export each operations”. Also, figs. 6 (A and B), 7, and 8 and related discussion),
 - iii) providing a code generator for acting on said input file to generate said serialization code (col. 1, lines 56-57 “transformation from a UML model to a MOF model”).

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Baisley does not explicitly disclose graphs that describe relationships between said objects of said model.

However, Goodwin discloses in an analogous computer system graphs that describe relationships between said objects of said model (col. 9, lines 48-51 “a Unified Modeling Language (UML) graph as an argument... unified modeling language graph is then traversed, parsed and used to generate source code objects”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of having the graphs to define the relationships as taught by Goodwin into the method of converting model from one to another language as taught by Baisley. The modification would be obvious because of one of ordinary skill in the art would be motivated to use the graphs to trace back where the code is generated from the class as suggested by Goodwin (col. 9, lines 42-65).

Per claim 11:

The rejection of claim 9 is incorporated, and further, Baisley disclose:

- wherein said input file comprises the type conversion information that describes how to convert a non-primitive type to a string (col. 3, lines 59-63 “For each primitive type, a MOF DataType is defined as an alias for a built-in type capable of representing the full range of values expected for the extent of the data type”).

Per claim 12:

The rejection of claim 9 is incorporated, and further, Baisley disclose:

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- wherein two code generators are provided for acting on said input file to generate said serialization code (col. 7, lines 59-60 “UML model... exist in three different forms” and (col. 7, lines 65-67 “the model 26 in the computer system memory may be converted into any one of the three forms of the MOF model”).

Per claim 13:

The rejection of claim 12 is incorporated, and further, Baisley disclose:

- wherein said two code generators are a binding generator and a DO generator (col. 8, lines 1-5 “the CASE tool UML model... converted into any one of the three forms of the MOF model”).

Per claim 14:

The rejection of claim 9 is incorporated, and further, Baisley disclose:

- iv) using said serialization code in an application to carry out type conversion (see FIG. 3 and related discussion).

Claims 23-28 are the system claims corresponding to method claims 9-14 respectively, and rejected under the same rational set forth in connection with the rejection of claims 9-14 respectively, above, as noted above and Baisley also discloses system , see FIG. 1 and associated text.

Claim 29-30 and 32 are the computer program product claim corresponding to method claim 9 and rejected under the same rationale set forth in connection with the rejection of claim 9 above.

Per claim 31:

The rejection of claim 30 is incorporated, and further, Baisley does not explicitly disclose wherein said plurality of type systems comprises Java type and SQL type.

However, Goodwin discloses in an analogous computer system wherein said plurality of type systems comprises Java type and SQL type (col. 2, lines 30-35 “multi-database system represents... support for a full object-oriented (Java) paradigm... including support for ANSI standard Structured Query Language (SQL)”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of support the Java and SQL systems in generating objects as taught by Goodwin into the method of converting model from one to another language as taught by Baisley. The modification would be obvious because of one of ordinary skill in the art would be motivated to use the system comprises Java and SQL to provide the development of applications that are portable across operating systems and databases as suggested by Goodwin (col. 2, lines 45-56).

Per claim 33:

Baisley discloses:

- A computer-implemented method of generating a model description from a description of a model in XMI comprising a plurality of objects which is useful for generating

serialization code for representing a model in a plurality of type systems (col. 1, lines 52-53 “automatically converts a model existing in the UML to a MOF model”), comprising producing an input file comprising:

- i) binding information between said model and said plurality of type system(col. 8, line 60 “process for exporting a class... MOF class object is created... process... export each operations”. Also, figs. 6 (A and B), 7, and 8 and related discussion);
- iv) type conversion information that describes how to convert a non-primitive type to a string (col. 7, lines 65-66 “FIG. 3 illustrates the fact that a flat file 25 form of the model may be converted”).

Baisley does not explicitly disclose graphs that describe relations between said objects.

However, Goodwin discloses in an analogous computer system graphs that describe relations between said objects (col. 9, lines 48-51 “a Unified Modeling Language (UML) graph as an argument... unified modeling language graph is then traversed, parsed and used to generate source code objects”); graphs that describe a subset of association for an object to serialize the object (col. 9, lines 48-51 “a Unified Modeling Language (UML) graph as an argument... unified modeling language graph is then traversed, parsed and used to generate source code objects”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of having the graphs to define the relationships as taught by Goodwin into the method of converting model from one to another language as taught by Baisley. The modification would be obvious because of one of ordinary

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skill in the art would be motivated to use the graphs to trace back where the code is generated from the class as suggested by Goodwin (col. 9, lines 42-65).

Response to Arguments

12. Applicant's arguments with respect to claims have been considered but they are not persuasive.

In the remarks, the applicant has argued that:

- (i) Regarding claims 13 and 27, it is not seen how Baisley Figure 3 and the description cited at column 8 teaches multiple generators and a DO generator.

Examiner's response:

- (i) Regarding claims 13 and 27, Baisley system does provide a converting program for a multiple type i.e., elements 28, 29, or 30 of FIG. 3, where binding and DO generator would be obvious if one needs to do the conversion (col. 7-8, lines 65-67 and 1-25). Applicant only makes general allegations and does not point out any errors in the rejection. Therefore, the rejection is proper and maintained herein.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tuan Q. Dam** can be reached on **(571) 272-3695**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

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Satish S. Rampuria

Patent Examiner

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06/13/2005



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PRIMARY EXAMINER